Appendix B – Indoor Air Quality, Bird Waste

Disease Associated with Bird Wastes

Mold is associated with bird waste. While this particular mold has been found problematic with immune compromised patients, other diseases of the respiratory tract result from exposure to bird waste. Exposure to bird wastes are thought to be associated with the development of hypersensitivity pneumonitis in some individuals. Psittacosis (bird fancier's disease) is another disease closely associated with exposure to bird wastes in either the occupational or bird raising setting. While immune compromised individuals have an increased risk to exposure to the materials in bird waste, these diseases listed may occur in healthy individuals exposed to these materials.

Clean Up Methods

The methods to be employed in clean up of a bird waste problem depend on the amount of waste and the types of materials contaminated. In some cases, (e.g., bird wastes within ventilation ductwork [MDPH, 1999]; 120 cubic feet of waste in a clock tower [MDPH, 1998]) a professional cleaning contractor was required to clean up these buildings. In other cases where the material is several droppings, cleaning the contaminated material with a solution of sodium hypochlorite is an effective method (CDC, 1998). Disinfection of non-porous materials can be readily accomplished with this material. Porous materials contaminated with bird waste should be examined by a professional restoration contractor to determine if the material in salvageable. Where a porous material has been colonized with mold, it is recommended that the material be discarded (ACGIH, 1993).

Worker Protection

While cleanup of a material is desirable, protecting the cleaner and other occupants present in the building must be considered. Where cleaning solutions are to be used, the cleaner is required to be trained in both personal protective equipment to prevent the spread of disease from the bird wastes, and in methods to prevent exposure to cleaning chemicals. In addition, the method used to clean up bird waste may result in the aerosolization of particulates that can spread to occupied areas via openings (e.g., doors) or by the ventilation system. Methods to both prevent the spread of bird waste particulates to occupied areas or into ventilation ducts must be employed. In this instance, the results can be similar to the spread of renovation-generated dusts and odors in occupied areas. To prevent this contingency, we would recommend that the cleaner employ the methods listed in the SMACNA guidelines for Containment of Renovation in Occupied Buildings (SMACNA, 1993).

References

ACGIH. 1989. Guidelines for the Assessment of Bioaerosols in the Indoor Environment. American Conference of Governmental Industrial Hygienists, Cincinnati, OH.

CDC. 1998. Compendium of Measures to Control Chlamydia psittaci Infection Among Human (Psittacosis and Pet Birds (Avian Chlamydiosis), 1998. MMWR 47:RR-10. July 10, 1998.

MDPH. 1998. Indoor Air Quality Assessment Walnut Square Elementary School, Haverhill, Massachusetts. Massachusetts Department of Public Health, Bureau of Environmental Health Assessment, Boston, MA.

MDPH. 1999. Indoor Air Quality Assessment Norfolk Probate Court, Dedham, Massachusetts. Massachusetts Department of Public Health, Bureau of Environmental Health Assessment, Boston, MA.

SMACNA. 1995. IAQ Guidelines for Occupied Buildings Under Construction. 1st ed. Sheet Metal and Air Conditioning Contractors' National Association, Inc., Chantilly, VA.